

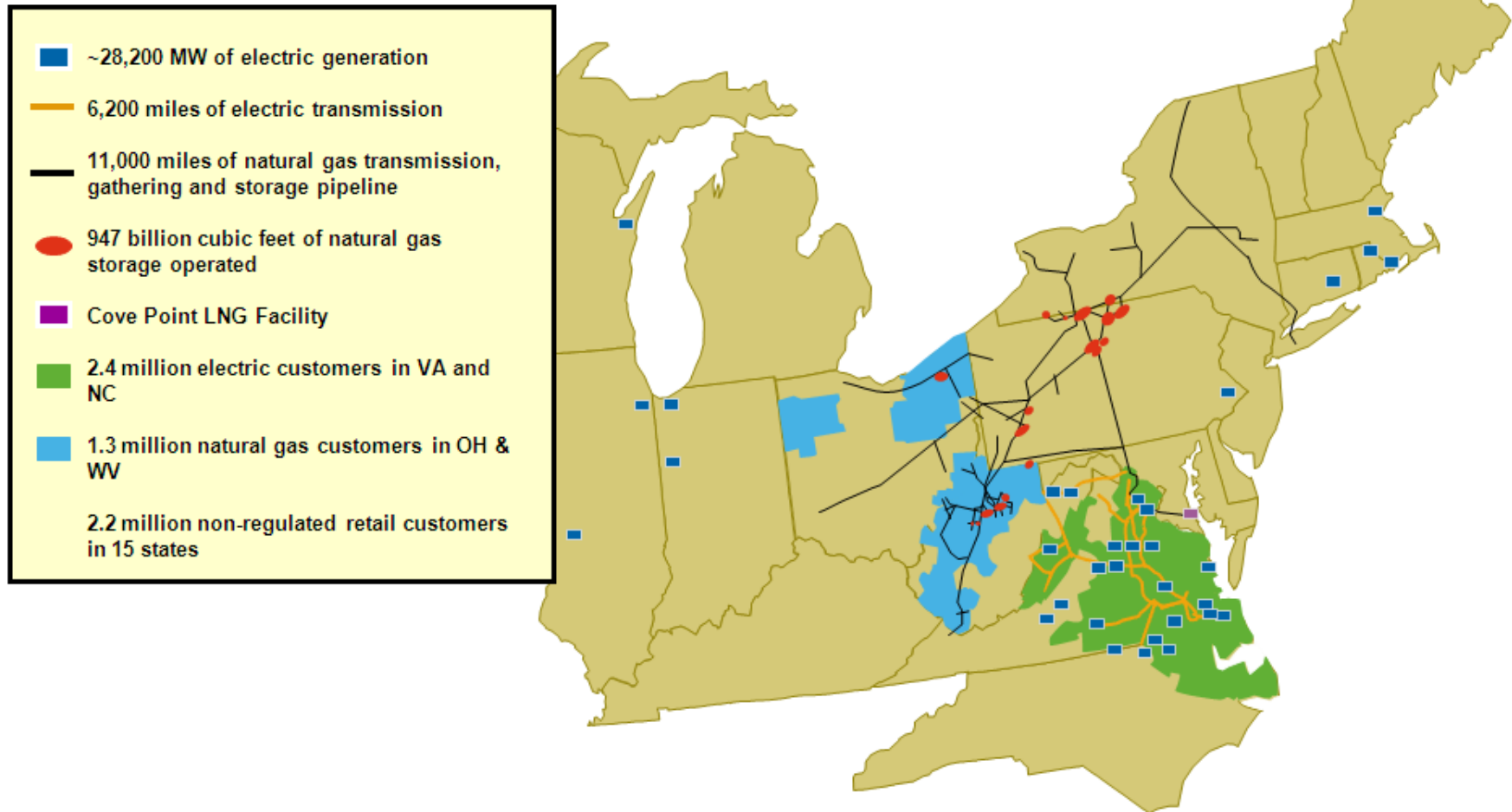


# Summary of Dominion's Renewable Energy Developments

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# Dominion Profile





# Renewable Energy: Piece of the Solution, Now and Long-Term

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- ❑ Meet state renewable goals in Virginia and North Carolina
- ❑ Reduce our carbon intensity
- ❑ Maintain a balanced, diverse generation portfolio
- ❑ Create local economic development opportunities
- ❑ Hedge against potential future rise in fuel costs

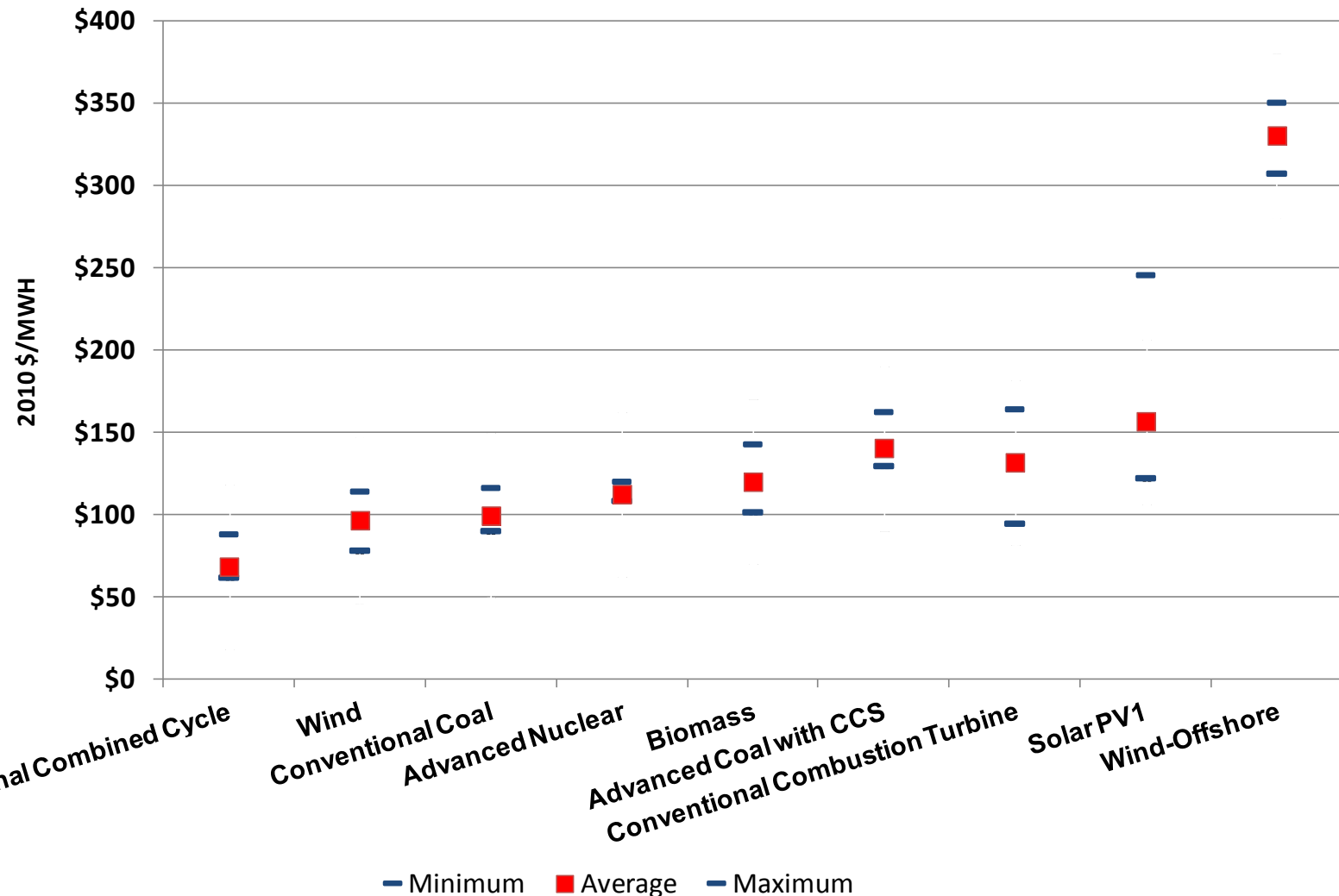


# Estimated VA Renewable Resources

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Solar (photovoltaic)	> 10,000 MW (limited only by available land)
Offshore Wind	~ 2,000 MW (based on federal use area)
Onshore Wind	~ 800 MW
Biomass (wood waste)	~ 500 MW
Biomass (animal/municipal waste)	~ 200 MW
Landfill gas	~ 50 MW
Hydro power	~ 50 MW
Geothermal	0 MW

# Levelized Cost of New Generation Resources, 2017



<sup>1</sup>Costs are expressed in terms of net AC power available to the grid for the installed capacity.

Source: U.S. Energy Information Administration, *Annual Energy Outlook 2012*, January 2012, DOE/EIA-0383(2012)



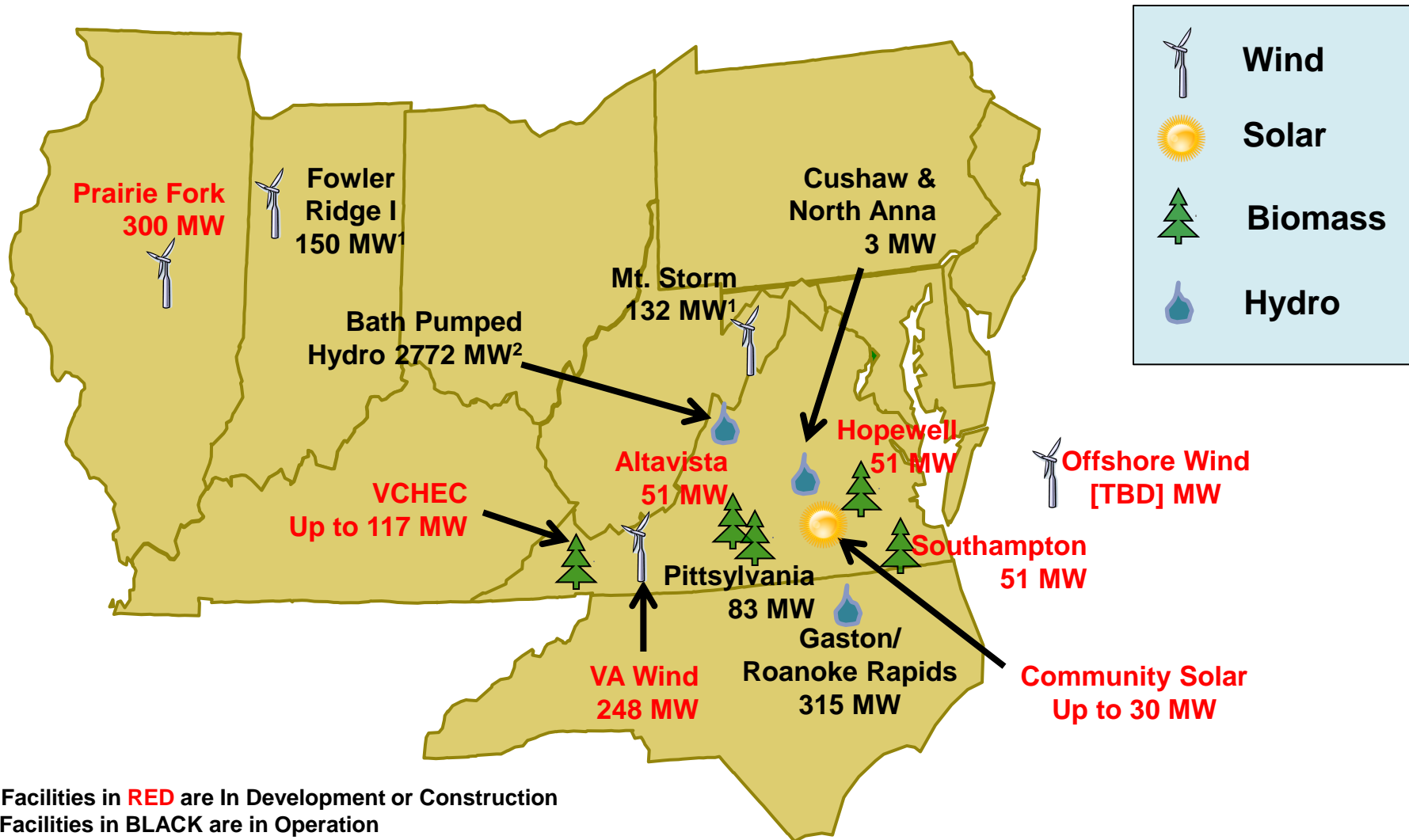
# Dominion is Active in Renewable Energy

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## Year   Activity

- Prior   Dominion ownership of 4 hydro facilities in VA and NC
- 2004   Dominion acquires largest biomass power facility in the U.S. (83 MW)
- 2006   Dominion adds biomass co-firing capability at Altavista (6 MW)
- 2007   RPS program established in VA with target of 12% by 2022 (legislated)
- 2008   Dominion construction and startup of two of the largest wind farms (564 MW in WV and IN)  
Dominion begins construction of VCHEC, with capability to use up to 20% biomass fuel
- 2009   VA RPS program augmented with new goal of 15% by 2025 (legislated)  
Dominion files its VA RPS plan with the VA SCC, seeking approval to participate  
Dominion initiates offering of Green Power option to retail customers  
Dominion forms Alternative Energy Solutions group
- 2010   VA SCC approves Dominion's RPS plan
- 2011   Dominion seeks approval from VA SCC to convert coal units to biomass (153 MW)  
Dominion seeks approval from VA SCC for community solar program (30 MW)
- 2012   Dominion responds to US BOEM offshore wind call-for-information  
Dominion continues to develop additional renewable projects in VA
  - onshore wind, offshore wind, biomass, solar, and other opportunities

# Dominion has 1,600<sup>+</sup> MW of Renewables in Development, Construction or Operation



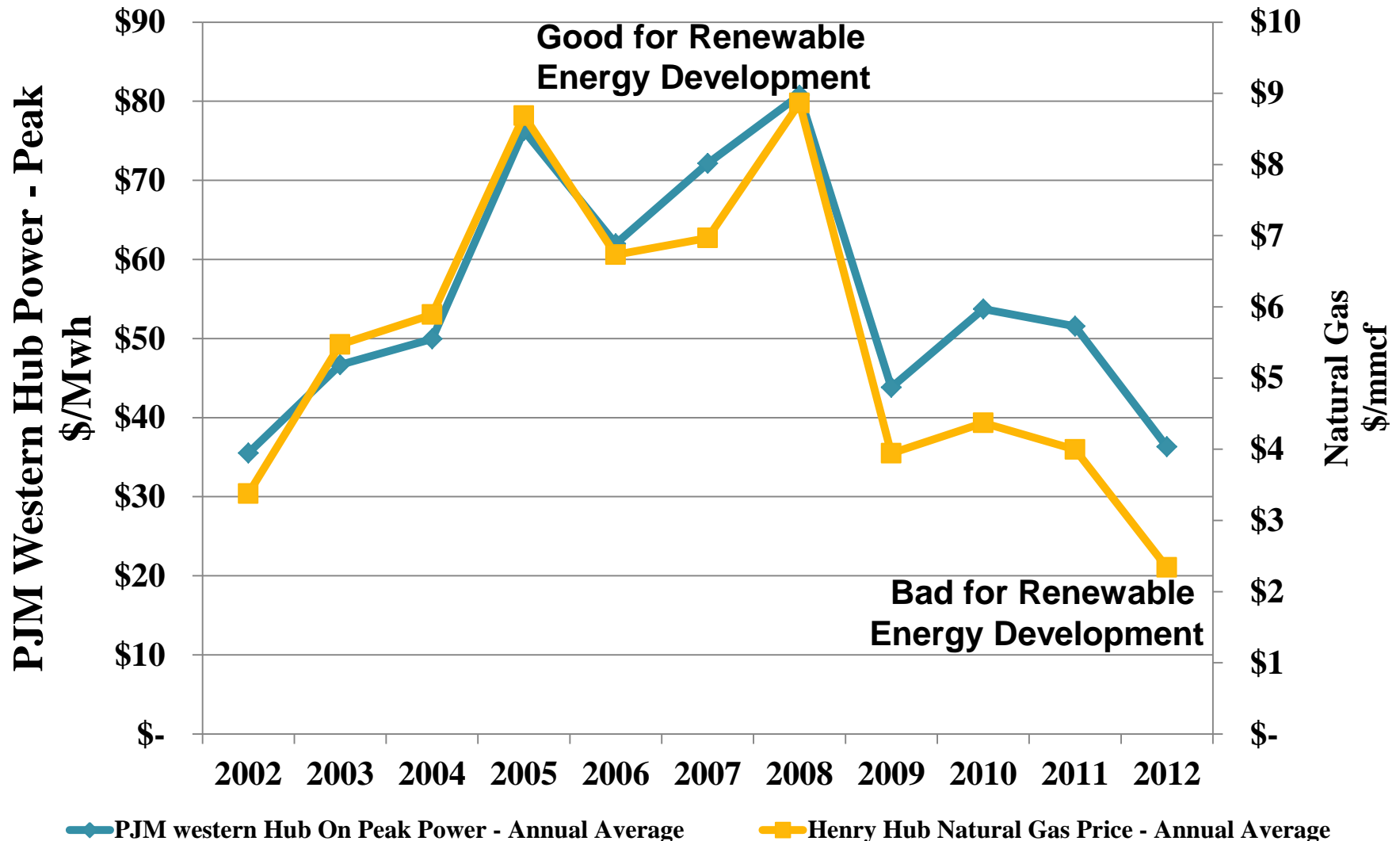
# Recent Factors Affecting Renewable Energy Economics

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<u>Item</u>	<u>Change</u>	<u>Impact</u>
Wholesale power prices	↓ 50%	High (-)
REC prices	↓ 90%	High (-)



# Natural Gas Prices Drive Wholesale Electricity Prices; Wholesale Electricity Prices Drive Renewable Energy Development (along with other federal incentives)



# Renewable Energy:

## Revenue components are now far below cost

